



SCRAMBILER SCRAMBILER

GENERAL DESCRIPTION

The Delcon Telephone Scrambler is a completely portable transistorized voice scrambler designed to afford privacy in telephone conversations. This unique instrument is placed in operation by merely holding it against the standard telephone handset.

The Telephone Scrambler converts the sound of the human voice into unintelligible jargon which can be vaguely identified as the sound of an incomprehensible foreign language, similar to the effect of a phonograph record played in reverse. A switchboard operator or person listening on an extension phone is unable to understand the conversation taking place. Only by the use of a matching instrument on the distant end is it possible to hear the re-constructed garble as clear speech. Instruments are specially coded so that instruments must be coded alike for use.

Since this complete two-way voice scrambler weighs only 26 ounces it can easily be carried in a brief case. It can be used from public pay phone booths and hotel phones as well as from office and home phones. The instruments function equally well on long distance calls and on local calls. Telephone Scramblers are used on commercial and private telephone systems and can be used on both domestic and foreign telephone instruments.

Internal batteries (supplied with instrument) provide approximately 100 hours of use.



NEW FEATURES

Greater dynamic range increases volume as the user speaks louder allowing more effective use on "country or open wire" telephone lines frequently found on domestic and foreign commercial and private systems.

Superior clarity and fidelity specially filtered networks improve sharpness of speech modulation with less "clipping".

Automatic mercury switch turns off batteries when scrambler is placed in horizontal position. Overriding manual switch is also provided for traveling. Both features help provide maximum battery life.



SPECIFICATIONS model 105E DELCON

SCRAMBLER*

CONSTRUCTION:

Miniaturized printed circuit construction, sturdy telephone-type case.

EXTERNAL CONTROLS:

Battery on-off switch (combined with internal automatic safety switch).

WEIGHT:

26 ounces

SHIPPING WEIGHT:

2-1/2 pounds (approximately)

BATTERIES:

Two each of any of the following mercury types:

 Eveready
 E-401
 1.35v

 Mallory
 RM-401
 1.40v

 Mallory
 RM-401R
 1.35v

OSCILLATOR STABILITY:

Oscillator frequency within \pm 10 cps through the temperature range of 0 to \pm 50° C.

PRICE:

Portable Telephone Scrambler Model 105E Shipped with mercury batteries installed F. O. B. Palo Alto, California\$ 275.00 per instrument

* PAT. PENDING

943 INDUSTRIAL AVENUE PALO ALTO, CALIFORNIA, USA TELEPHONE 415-321-8200



Product Bulletin 214/215

MOBILE AND BASE STATION RADIOTELEPHONE SCRAMBLERS

MODELS 214 and 215

GENERAL DESCRIPTION

The Delcon Model 214 and 215 Radiotelephone Scramblers are compact transistorized speech scramblers designed to provide two-way privacy on AM and FM radio circuits in both mobile and base station models. The mobile unit operates from the 12 vdc vehicle battery, base station unit from 117 volt power line source. A universal mounting bracket supplied with each Model 214 scrambler permits under-dash or bulk-head mounting. When used in conjunction with two-way radio equipment, the normal radiotelephone volume and squelch controls are used. A single control on the front panels of the 214 and 215 permits the selection of either clear or scrambled communication modes. The 214 and 215 are designed to permit mating with radio equipment using any standard carbon or reluctance type microphone.





SPECIFICATIONS

TYPE OF CIRCUIT:

Frequency Inversion

OPERATING FREQUENCY RANGE:

500-2500 cps

OPERATING MODES:

Clear Speech - Scrambled Speech

EXTERNAL CONTROLS:

Mode Selector

INTERNAL ADJUSTMENTS:

Scrambled Transmit Audio

SIZE:

Model 214 Scrambler

 $7\frac{3}{16}$ wide $\times 2\frac{5}{8}$ high $\times 6\frac{7}{8}$ deep

Model 215 Scrambler

 $6\frac{3}{4}$ wide $\times 2\frac{7}{8}$ high $\times 10\frac{1}{4}$ deep

NET WEIGHT:

Model 214

3 pounds, 11 ounces

Model 215

5 pounds, 15 ounces

AUDIO POWER OUTPUT:

2.0 watts into 3.2 ohms (receive)

INPUT POWER REQUIREMENTS:

0.9 ampere (maximum) (Model 214) 15 watts (maximum) (Model 215)

TEMPERATURE RANGE:

-20°C to +55°C

ORDERING INFORMATION

MODEL 214:

Mobile Model: 12 volts dc (other voltages avail-

able on special order)

MODEL 215

Base Station Model: 117 volts ac

MICROPHONE:

Mobile and Base Station Models normally use standard microphone with which radiotelephone

is equipped.

SHIPPING WEIGHT

Model 214: less than 8 lbs.

Model 215: less than 10 lbs.

PRICE:

Model 214 . . .

\$300.00 per instrument

Model 215 . . .

\$400.00 per instrument

All prices f. o. b. Palo Alto, California.

With order, please indicate make and model number of radiotelephone equipment with which scrambler will be mated. When re-ordering, indicate serial number of present units.

All prices and specifications subject to change without notice.



DELCON CORPORATION 943 INDUSTRIAL AVENUE PALO ALTO, CALIFORNIA, 94303 TELEPHONE: 415-321-8200

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943 INDUSTRIAL AVENUE PALO ALTO, CALIFORNIA 94303 TELEPHONE: (415) 321-8200

November 23, 1963

Mr. T. Nelson 2328 SW 17th Street Miami 45, Florida

Dear Mr. Nelson:

Thank you for your request for information on the Delcon line of Scrambler equipment.

The Model 105E Scrambler is a unique instrument designed to mate with any standard telephone handset. This transistorized instrument is completely self-contained and can be easily carried in a top coat pocket or brief case. It can be used on any available telephone. Complex installation is not required. In use, the Scrambler is merely held against the telephone handset.

Delcon Scramblers should be ordered in pairs having identical codes, however, additional instruments can be coded identically to provide a system to serve as many individuals as the customer desires. The system may be expanded at any time the customer finds convenient or necessary.

Delcon Radiotelephone Scrambler instruments for use on two-way radiotelephone equipment are now available to enable customers to achieve conversational privacy in their mobile telephone systems. The Model 214 and Model 215 Radiotelephone Scrambler instruments provide a means whereby radio messages can be exchanged in confidence and only receivers equipped with code matched instruments can receive these messages in clear language.

Product bulletin 105E describes the features of the portable telephone Scrambler and product bulletin 214/215 describes the radiotelephone models of the Scrambler. Prices and ordering information for all Scrambler instruments are included in the enclosed bulletins.

We shall look forward to receiving your order.

Very truly yours,
DELCON CORPORATION

Sales Manager

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